



SEQUENCE LISTING

<110> HAGAY, YOCHVED
LAZAROVITS, JANETTE
GUY, RACHEL
LIFSHITZ, ORLY
SZANTON, ESTHER
LEVANON, AVIGDOR
PLAKSIN, DANIEL
PERETZ, TUVIA

<120> SPECIFIC HUMAN ANTIBODIES FOR SELECTIVE CANCER THERAPY

<130> 10793/50

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<141> 2001-12-31

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<160> 241

<170> PatentIn Ver. 3.3

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Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly
 35 40 45

Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser
 50 55 60

Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp
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Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val
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Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala
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Val Val Arg Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 35           40           45

Phe Thr Phe Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly
 50           55           60

Lys Gly Leu Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr
 65           70           75           80

Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
 85           90           95

Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
100           105           110

Thr Ala Val Tyr Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly
115           120           125

Gln Gly Thr Leu Val Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly
130           135           140

Gly Gly Ser Gly Gly Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala
145           150           155           160

Val Ser Val Ala Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp
165           170           175

Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln
180           185           190

Ala Pro Val Leu Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile
195           200           205

Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr
210           215           220

Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser
225           230           235           240

Arg Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu
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20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
85 90 95

Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr
115 120 125

Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
130 135 140

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly
145 150 155 160

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
165 170 175

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
180 185 190

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
195 200 205

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
210 215 220

Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr
225 230 235 240

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
245 250 255

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
 260 265 270
 Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
 275 280 285
 Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 290 295 300
 Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
 305 310 315 320
 Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
 325 330 335
 Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
 340 345 350
 Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
 355 360 365
 Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
 370 375 380
 Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
 385 390 395 400
 Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Ser Pro Val Leu Asp
 405 410 415
 Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
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 35 40 45

Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu
 50 55 60
 Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe
 65 70 75 80
 Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala
 85 90 95
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser
 100 105 110
 Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 115 120 125
 Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu
 130 135 140
 Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe
 145 150 155 160
 Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val
 165 170 175
 Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys
 180 185 190
 Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser
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 Lys Thr Val Ala Pro Thr Glu Cys Ser
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 Tyr Met His Trp Val Gln Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Leu Val Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Glu Lys Phe
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 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Glu Leu Gly Trp Met
 35 40 45
 Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
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 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
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 Ala Thr

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 35 40 45
 Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
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 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
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 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
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 Gln Gly Trp Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
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 35 40 45
 Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
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 Cys Met His Trp Val Arg Gln Val His Ala Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Leu Val Cys Pro Ser Asp Gly Ser Thr Ser Tyr Ala Gln Lys Phe
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 Gln Ala Arg Val Thr Ile Thr Arg Asp Thr Ser Met Ser Thr Ala Tyr
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 35 40 45
 Gly Trp Ile Val Val Gly Ser Gly Asn Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
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 35 40 45
 Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
 50 55 60
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 35 40 45
 Gly Arg Ile Ile Pro Ile Leu Gly Ile Ala Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
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 85 90 95
 Ala Arg

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 Ala Met His Trp Val Arg Gln Ala Pro Gly Gln Arg Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Ala Gly Asn Gly Asn Thr Lys Tyr Ser Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Arg Asp Thr Ser Ala Ser Thr Ala Tyr
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 85 90 95
 Ala Arg

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 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Gln Arg Leu Glu Trp Met
 35 40 45
 Gly Trp Ser Asn Ala Gly Asn Gly Asn Thr Lys Tyr Ser Gln Glu Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Arg Asp Thr Ser Ala Ser Thr Ala Tyr
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 Ala Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Thr Asn Thr Gly Asn Pro Thr Tyr Ala Gln Gly Phe
 50 55 60
 Thr Gly Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
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 85 90 95
 Ala Arg

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 Ala Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Thr Asn Thr Gly Asn Pro Thr Tyr Ala Gln Gly Phe
 50 55 60
 Thr Gly Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
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 Ala Arg

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 35 40 45
 Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
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 Ala Arg

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 Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
 50 55 60
 Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
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 Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
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 20 25 30
 Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
 50 55 60
 Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala
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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
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 20 25 30
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 49

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 20 25 30
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
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 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
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Ala Arg

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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Tyr Arg
20 25 30
Tyr Leu His Trp Val Arg Gln Ala Pro Gly Gln Ala Leu Glu Trp Met
35 40 45
Gly Trp Ile Thr Pro Phe Asn Gly Asn Thr Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser Met Ser Thr Ala Tyr
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20 25 30
Tyr Leu His Trp Val Arg Gln Ala Pro Gly Gln Ala Leu Glu Trp Met
35 40 45
Gly Trp Ile Thr Pro Phe Asn Gly Asn Thr Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser Met Ser Thr Ala Tyr
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Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys
85 90 95
Ala Arg

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Gln Val Thr Leu Lys Glu Ser Gly Pro Val Leu Val Lys Pro Thr Glu
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 20 25 30
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 35 40 45
 Trp Leu Ala His Ile Phe Ser Asn Asp Glu Lys Ser Tyr Ser Thr Ser
 50 55 60
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 Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
 85 90 95

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<213> Homo sapiens

<400> 53

Gln Ile Thr Leu Lys Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1 5 10 15
 Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30
 Glu Trp Cys Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu Trp
 35 40 45
 Leu Ala Leu Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser Leu
 50 55 60
 Lys Ser Arg Leu Thr Ile Thr Lys Asp Thr Ser Lys Asn Gln Val Val
 65 70 75 80
 Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr Cys
 85 90 95
 Ala His Arg

<210> 54

<211> 96

<212> PRT

<213> Homo sapiens

<400> 54

Gln	Val	Thr	Leu	Arg	Glu	Ser	Gly	Pro	Ala	Leu	Val	Lys	Pro	Thr	Gln
1				5					10					15	
Thr	Leu	Thr	Leu	Thr	Cys	Thr	Phe	Ser	Gly	Phe	Ser	Leu	Ser	Thr	Ser
			20					25					30		
Gly	Met	Cys	Val	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Ala	Leu	Glu
		35					40					45			
Trp	Leu	Ala	Leu	Ile	Asp	Trp	Asp	Asp	Asp	Lys	Tyr	Tyr	Ser	Thr	Ser
	50					55					60				
Leu	Lys	Thr	Arg	Leu	Thr	Ile	Ser	Lys	Asp	Thr	Ser	Lys	Asn	Gln	Val
65					70					75					80
Val	Leu	Thr	Met	Thr	Asn	Met	Asp	Pro	Val	Asp	Thr	Ala	Thr	Tyr	Tyr
				85					90					95	

<210> 55

<211> 96

<212> PRT

<213> Homo sapiens

<400> 55

Gln	Val	Thr	Leu	Lys	Glu	Ser	Gly	Pro	Ala	Leu	Val	Lys	Pro	Thr	Gln
1				5					10					15	
Thr	Leu	Thr	Leu	Thr	Cys	Thr	Phe	Ser	Gly	Phe	Ser	Leu	Ser	Thr	Ser
			20					25					30		
Gly	Met	Arg	Val	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Ala	Leu	Glu
		35					40					45			
Trp	Leu	Ala	Arg	Ile	Asp	Trp	Asp	Asp	Asp	Lys	Phe	Tyr	Ser	Thr	Ser
	50					55					60				
Leu	Lys	Thr	Arg	Leu	Thr	Ile	Ser	Lys	Asp	Thr	Ser	Lys	Asn	Gln	Val
65					70					75					80
Val	Leu	Thr	Met	Thr	Asn	Met	Asp	Pro	Val	Asp	Thr	Ala	Thr	Tyr	Tyr
				85					90					95	

<210> 56

<211> 100

<212> PRT

<213> Homo sapiens

<400> 56

Gln Ile Thr Leu Lys Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1 5 10 15
 Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30
 Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
 35 40 45
 Trp Leu Ala Leu Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser
 50 55 60
 Leu Lys Ser Arg Leu Thr Ile Thr Lys Asp Thr Ser Lys Asn Gln Val
 65 70 75 80
 Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
 85 90 95
 Cys Ala His Arg
 100

<210> 57

<211> 100

<212> PRT

<213> Homo sapiens

<400> 57

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp His
 20 25 30
 Tyr Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Gly Arg Thr Arg Asn Lys Ala Asn Ser Tyr Thr Thr Glu Tyr Ala Ala
 50 55 60
 Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Ala Arg
 100

<210> 58

<211> 100

<212> PRT

<213> Homo sapiens

<400> 58

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp His
 20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Gln Gly Lys Gly Leu Glu Leu Val
 35 40 45

Gly Leu Ile Arg Asn Lys Ala Asn Ser Tyr Thr Thr Glu Tyr Ala Ala
 50 55 60

Ser Val Lys Gly Arg Leu Thr Ile Ser Arg Glu Asp Ser Lys Asn Thr
 65 70 75 80

Leu Tyr Leu Gln Met Ser Ser Leu Lys Thr Glu Asp Leu Ala Val Tyr
 85 90 95

Tyr Cys Ala Arg
 100

<210> 59

<211> 100

<212> PRT

<213> Homo sapiens

<400> 59

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp His
 20 25 30

Tyr Met Ser Trp Val Arg Gln Ala Gln Gly Lys Gly Leu Glu Leu Val
 35 40 45

Gly Leu Ile Arg Asn Lys Ala Asn Ser Tyr Thr Thr Glu Tyr Ala Ala
 50 55 60

Ser Val Lys Gly Arg Leu Thr Ile Ser Arg Glu Asp Ser Lys Asn Thr
 65 70 75 80

Leu Tyr Leu Gln Met Ser Ser Leu Lys Thr Glu Asp Leu Ala Val Tyr
 85 90 95

Tyr Cys Ala Arg
 100

<210> 60

<211> 98

<212> PRT

<213> Homo sapiens

25

<400> 60

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Lys

<210> 61

<211> 98

<212> PRT

<213> Homo sapiens

<400> 61

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30
Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

<210> 62

<211> 98

<212> PRT

<213> Homo sapiens

<400> 62

Glu Val Gln Leu Val Glu Ser Gly Gly Val Val Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30
 Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Leu Ile Ser Trp Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95
 Ala Lys

<210> 63

<211> 98

<212> PRT

<213> Homo sapiens

<400> 63

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
 20 25 30
 Tyr Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Tyr Ile Ser Ser Ser Gly Ser Thr Ile Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 64

<211> 100

<212> PRT

<213> Homo sapiens

<400> 64

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
 20 25 30
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Gly Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
 50 55 60
 Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Thr Thr
 100

<210> 65

<211> 98

<212> PRT

<213> Homo sapiens

<400> 65

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Pro Ala Ser Gly Phe Thr Phe Ser Asn His
 20 25 30
 Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Tyr Ile Ser Gly Asp Ser Gly Tyr Thr Asn Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Asn Asn Ser Pro Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Val Lys

<210> 66

<211> 98

<212> PRT

<213> Homo sapiens

<400> 66

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn His
 20 25 30

Tyr Thr Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Tyr Ser Ser Gly Asn Ser Gly Tyr Thr Asn Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Val Lys

<210> 67

<211> 98

<212> PRT

<213> Homo sapiens

<400> 67

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ser
 20 25 30

Asp Met Asn Trp Val His Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Gly Val Ser Trp Asn Gly Ser Arg Thr His Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser Arg Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Thr Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Val Arg

<210> 68

<211> 97

<212> PRT

<213> Homo sapiens

<400> 68

Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Ile Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
 20 25 30
 Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60
 Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
 65 70 75 80
 Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 69

<211> 97

<212> PRT

<213> Homo sapiens

<400> 69

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
 20 25 30
 Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60
 Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
 65 70 75 80
 Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 70

<211> 97

<212> PRT

<213> Homo sapiens

30

<400> 70

Glu Val Gln Leu Val His Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Gly Thr Gly Gly Gly Thr Tyr Tyr Ala Asp Ser Val Lys
50 55 60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80
Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg

<210> 71

<211> 97

<212> PRT

<213> Homo sapiens

<400> 71

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Gly Thr Gly Gly Gly Thr Tyr Tyr Ala Asp Ser Val Lys
50 55 60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80
Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg

<210> 72

<211> 98

<212> PRT

<213> Homo sapiens

<400> 72

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val
 35 40 45
 Ser Ala Ile Ser Ser Asn Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Val Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Val Arg

<210> 73

<211> 35

<212> PRT

<213> Homo sapiens

<400> 73

Thr Phe Ser Ser Tyr Ala Met His Trp Val Arg Gln Ala Pro Gly Lys
 1 5 10 15
 Gly Leu Glu Tyr Val Ser Ala Ile Ser Ser Asn Gly Gly Ser Thr Tyr
 20 25 30
 Tyr Ala Asp
 35

<210> 74

<211> 98

<212> PRT

<213> Homo sapiens

<400> 74

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 75

<211> 98

<212> PRT

<213> Homo sapiens

<400> 75

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 76

<211> 98

<212> PRT

<213> Homo sapiens

<400> 76

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

<210> 77

<211> 98

<212> PRT

<213> Homo sapiens

<400> 77

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys

<210> 78

<211> 97

<212> PRT

<213> Homo sapiens

<400> 78

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

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<210> 79
<211> 98
<212> PRT
<213> Homo sapiens
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<400> 79  
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly  
   1                               5                             10                            15  
  
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
                20                      25                     30  
  
Glu Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
          35                        40                          45  
  
Ser Tyr Ile Ser Ser Ser Gly Ser Thr Ile Tyr Tyr Ala Asp Ser Val  
    50                    55                   60  
  
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr  
   65              70                  75                 80  
  
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys  
            85                90               95
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<210> 80
<211> 98
<212> PRT
<213> Homo sapiens
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<400> 80
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
  1                               10                   15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
      20                   25                   30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35                   40                   45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
  50                   55                   60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
  65                   70                   75                   80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
      85                   90                   95

```

Ala Lys

<210> 81
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 81
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 82
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 82
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Tyr Ile Ser Ser Ser Ser Ser Thr Ile Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 83
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 83
 Glu Asp Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Pro Ser Cys Ala Ala Ser Gly Phe Ala Phe Ser Ser Tyr
 20 25 30
 Val Leu His Trp Val Arg Arg Ala Pro Gly Lys Gly Pro Glu Trp Val
 35 40 45
 Ser Ala Ile Gly Thr Gly Gly Asp Thr Tyr Tyr Ala Asp Ser Val Met
 50 55 60
 Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr Leu
 65 70 75 80
 Gln Met Asn Ser Leu Ile Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 84
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 84
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Trp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Val Trp Val
 35 40 45
 Ser Arg Ile Asn Ser Asp Gly Ser Ser Thr Thr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 85
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 85
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 86
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 86
 Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Glu Ile Ile His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95
 Arg

<210> 87

<211> 97
 <212> PRT
 <213> Homo sapiens

<400> 87

Gln	Val	Gln	Leu	Gln	Gln	Trp	Gly	Ala	Gly	Leu	Leu	Lys	Pro	Ser	Glu
1				5					10					15	
Thr	Leu	Ser	Leu	Thr	Cys	Ala	Val	Tyr	Gly	Gly	Ser	Phe	Ser	Gly	Tyr
			20					25					30		
Tyr	Trp	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
		35					40					45			
Gly	Glu	Ile	Asn	His	Ser	Gly	Ser	Thr	Asn	Tyr	Asn	Pro	Ser	Leu	Lys
	50					55					60				
Ser	Arg	Val	Thr	Ile	Ser	Val	Asp	Thr	Ser	Lys	Asn	Gln	Phe	Ser	Leu
65					70					75					80
Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala
				85					90					95	

Arg

<210> 88
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 88

Gln	Val	Gln	Leu	Gln	Gln	Trp	Gly	Ala	Gly	Leu	Leu	Lys	Pro	Ser	Glu
1				5					10					15	
Thr	Leu	Ser	Leu	Thr	Cys	Ala	Val	Tyr	Gly	Gly	Ser	Val	Ser	Gly	Tyr
			20					25					30		
Tyr	Trp	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
		35					40					45			
Gly	Tyr	Ile	Tyr	Tyr	Ser	Gly	Ser	Thr	Asn	Asn	Asn	Pro	Ser	Leu	Lys
	50					55					60				
Ser	Arg	Ala	Thr	Ile	Ser	Val	Asp	Thr	Ser	Lys	Asn	Gln	Phe	Ser	Leu
65					70					75					80
Asn	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Cys	Cys	Ala
				85					90					95	

Arg

<210> 89
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 89
 Gln Leu Gln Leu Gln Glu Ser Gly Ser Gly Leu Val Lys Pro Ser Gln
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Ile Ser Ser Gly
 20 25 30
 Gly Tyr Ser Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Tyr Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Arg Ser Lys Asn Gln Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg

<210> 90
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 90
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
 20 25 30
 Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg

<210> 91
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 91
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Val Ser Ser Gly
 20 25 30
 Ser Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg

<210> 92
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 92
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Gly
 20 25 30
 Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 93
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 93
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Ser Ile Ser Ser Gly
 20 25 30
 Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 94
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 94
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Asp
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Val Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 95
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 95
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Ile Tyr Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Val Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 96
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 96
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Val Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Glu Ile Tyr His Ser Gly Asn Pro Asn Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Ile Asp Lys Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 97
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 97
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Val Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Glu Ile Tyr His Ser Gly Ser Pro Asn Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Val Asp Lys Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 98
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 98
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Pro Gly
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Glu Ile Tyr His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Val Asp Lys Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Cys Cys
 85 90 95
 Ala Arg

<210> 99
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 99
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gly
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Asn Trp Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Ile Gly Glu Ile Tyr His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu
 50 55 60
 Lys Ser Arg Val Thr Ile Ser Val Asp Lys Ser Lys Asn Gln Phe Ser
 65 70 75 80
 Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 100
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 100
 Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Ser Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg

<210> 101
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 101
 Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30
 Ser Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn His Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg

<210> 102
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 102
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Ala Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Arg Ile Tyr Thr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Asn Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95
 Arg

<210> 103
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 103
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 104
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 104
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Val Ser Ser Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Met Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 105
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 105
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Asp
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr
 20 25 30
 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
 Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
 Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80
 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 106
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 106
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 107
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 107
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Pro Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 108
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 108
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 109
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 109
 Glu Val Gln Leu Leu Gln Ser Ala Ala Glu Val Lys Arg Pro Gly Glu
 1 5 10 15
 Ser Leu Arg Ile Ser Cys Lys Thr Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile His Trp Val Arg Gln Met Pro Gly Lys Glu Leu Glu Trp Met
 35 40 45
 Gly Ser Ile Tyr Pro Gly Asn Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly His Val Thr Ile Ser Ala Asp Ser Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Ala Ala Met Tyr Tyr Cys
 85 90 95
 Val Arg

<210> 110
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 110
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile Ser Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Arg Ile Asp Pro Ser Asp Ser Tyr Thr Asn Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly His Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 111
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 111
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
 Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30
 Trp Ile Ser Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Arg Ile Asp Pro Ser Asp Ser Tyr Thr Asn Tyr Ser Pro Ser Phe
 50 55 60
 Gln Gly His Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 112
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 112
 Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Asn
 20 25 30
 Ser Ala Ala Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu
 35 40 45
 Trp Leu Gly Arg Thr Tyr Tyr Arg Ser Lys Trp Tyr Asn Asp Tyr Ala
 50 55 60
 Val Ser Val Lys Ser Arg Ile Thr Ile Asn Pro Asp Thr Ser Lys Asn
 65 70 75 80
 Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
 85 90 95
 Tyr Tyr Cys Ala Arg
 100

<210> 113
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 113
 Arg Lys Leu Gly Ala Ser Val Lys Val Ser Arg Lys Ala Ser Ser Tyr
 1 5 10 15
 Thr Phe Thr Ser Tyr Asp Ile His Cys Val Arg Gln Ala Pro Gly Lys
 20 25 30
 Gly Leu Lys Gly Trp Met Gly Gly Ile Tyr Ser Gly Asn Gly Lys Thr
 35 40 45
 Gly Tyr Ala Gln Lys Phe Gln Arg Val Thr Met Thr Arg Asp Met Ser
 50 55 60
 Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Gln Arg Ser Glu Asp Ile
 65 70 75 80
 Asp Val Tyr Tyr Cys Ala Arg
 85

<210> 114
 <211> 5
 <212> PRT
 <213> Homo sapiens

<400> 114
 Asp Tyr Gly Met Ser
 1 5

<210> 115
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 115
 Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser Val Lys
 1 5 10 15
 Gly

<210> 116
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 116
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Arg
 1 5 10

<210> 117
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 117
 Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
 1 5 10

<210> 118
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 118
 Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 1 5 10

<210> 119
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 119
 Gly Lys Gly Leu Glu Trp Val Ser
 1 5

<210> 120
 <211> 6
 <212> PRT
 <213> Homo sapiens

<400> 120
 Trp Val Arg Gln Ala Pro
 1 5

<210> 121
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 121
 Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp
 1 5 10

<210> 122
 <211> 7
 <212> PRT
 <213> Homo sapiens

<400> 122
 Ala Val Tyr Tyr Cys Ala Arg
 1 5

<210> 123
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 123
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 1 5 10 15
 Gly Gly Gly Ser
 20

<210> 124
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 124
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10 15

<210> 125
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 125
 Asn Ser Arg Asp Ser Ser Gly Asn His
 1 5

<210> 126
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 126
 Ala Ala Trp Asp Asp Ser Leu Val
 1 5

<210> 127
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 127
 Met Gln Ser Ile Gln Leu Pro Thr
 1 5

<210> 128
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 128
 Met Gln Ser Ile Gln Leu Pro Ala Thr
 1 5

<210> 129
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 129
 Ala Ala Trp Asp Asp Gly Leu Ser Leu Val
 1 5 10

<210> 130
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 130
 Ala Ala Trp Asp Asp Ser Leu Ser Gly Val
 1 5 10

<210> 131
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 131
 Asn Ser Arg Asp Ser Ser Gly Ser Val Arg Val
 1 5 10

<210> 132
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 132
 Leu Leu Tyr Tyr Gly Gly Ala Tyr Val
 1 5

<210> 133
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 133
 Asn Ser Arg Asp Ser Ser Gly Val Ser Arg Val
 1 5 10

<210> 134
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 134
 Ala Ala Trp Asp Asp Ser Leu Pro Tyr Val
 1 5 10

<210> 135
 <211> 12
 <212> PRT
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<400> 135
 Ala Ala Trp Asp Asp Ser Leu Cys Pro Glu Phe Val
 1 5 10

<210> 136
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 136
 Ala Ala Trp Asp Asp Ser Leu Ala Trp Phe Val
 1 5 10

<210> 137
 <211> 10
 <212> PRT
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<400> 137
 Leu Ala Trp Asp Thr Ser Pro Arg Trp Val
 1 5 10

<210> 138
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 138
 Thr Ala Trp Asp Asp Ser Leu Ala Val Val
 1 5 10

<210> 139
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 139
Asn Ser Arg Asp Ser Ser Gly Asn His Arg Val
1 5 10

<210> 140
<211> 9
<212> PRT
<213> Homo sapiens

<400> 140
Gln Gln Tyr Gly Ser Ser Gln Arg Thr
1 5

<210> 141
<211> 10
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<213> Homo sapiens

<400> 141
Ala Ala Trp Asp Asp Ser Leu Arg Leu Val
1 5 10

<210> 142
<211> 9
<212> PRT
<213> Homo sapiens

<400> 142
Met Gln Gly Thr His Trp Arg Pro Thr
1 5

<210> 143
<211> 9
<212> PRT
<213> Homo sapiens

<400> 143
Met Gln Gly Lys His Trp Pro Leu Thr
1 5

<210> 144
<211> 9
<212> PRT
<213> Homo sapiens

<400> 144
Ala Ala Trp Asp Asp Ser Leu Gly Phe
1 5

<210> 145
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 145
 Met Gln Gly Thr His Arg Arg Ala Thr
 1 5

<210> 146
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 146
 Met Gln Ala Leu Gln Thr Pro Leu Thr
 1 5

<210> 147
 <211> 9
 <212> PRT
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<400> 147
 Met Arg Gly Thr His Arg Arg Ala Thr
 1 5

<210> 148
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 148
 Met Gln Gly Thr His Trp His Pro Thr
 1 5

<210> 149
 <211> 8
 <212> PRT
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<400> 149
 Met Gln Ala Leu Gln Ser Pro Thr
 1 5

<210> 150
 <211> 10
 <212> PRT
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<400> 150
 Ala Ala Trp Asp Asp Ser Leu Ala Phe Val
 1 5 10

<210> 151
 <211> 8
 <212> PRT
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<400> 151
 Met Gln Ala Leu Gln Thr Pro Thr
 1 5

<210> 152
 <211> 8
 <212> PRT
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<400> 152
 Gln Gln Ser Tyr Ser Thr Arg Thr
 1 5

<210> 153
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 153
 Met Gln Gly Thr His Trp Pro Phe Thr
 1 5

<210> 154
 <211> 9
 <212> PRT
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<400> 154
 Met Gln Gly Thr His Trp Pro Ala Thr
 1 5

<210> 155
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 155
 Ala Ala Trp Asp Asp Ser Leu Arg Ser Val
 1 5 10

<210> 156
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 156

Ala Ala Trp Asp Asp Ser Leu Leu Val
 1 5

<210> 157
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 157
 Asp Ser Trp Asp Asn Ser Leu Val Ser Pro Val
 1 5 10

<210> 158
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 158
 Met Gln Ala Leu Gln Ser Pro Ala Thr
 1 5

<210> 159
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 159
 Met Gln Ala Leu Gln Thr Pro Val Thr
 1 5

<210> 160
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 160
 Ala Ala Trp Asp Asp Ser Leu Ser Ala Tyr Val
 1 5 10

<210> 161
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 161
 Asn Ser Arg Asp Ser Ser Gly Arg Val Asn Val
 1 5 10

<210> 162
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 162

Met Gln Ala Leu Arg Thr Arg Thr
1 5

<210> 163

<211> 11

<212> PRT

<213> Homo sapiens

<400> 163

Ala Ala Trp Asp Asp Ser Leu Phe Tyr Pro Val
1 5 10

<210> 164

<211> 9

<212> PRT

<213> Homo sapiens

<400> 164

Met Gln Gly Thr His Trp Pro Val Thr
1 5

<210> 165

<211> 8

<212> PRT

<213> Homo sapiens

<400> 165

Met Gln Gly Thr His Trp Arg Thr
1 5

<210> 166

<211> 10

<212> PRT

<213> Homo sapiens

<400> 166

Ala Ala Trp Asp Asp Ser Leu Phe Tyr Val
1 5 10

<210> 167

<211> 9

<212> PRT

<213> Homo sapiens

<400> 167

Met Gln Ser Ile Gln Leu Pro Leu Thr
1 5

<210> 168
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 168
 Ala Ala Trp Asp Asp Ser Leu Leu Gly Ser Val
 1 5 10

<210> 169
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 169
 Cys Ser Tyr Ala Gly Ser Ser Tyr Val
 1 5

<210> 170
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 170
 Gln Gln Asp Tyr Asn Leu Leu Thr
 1 5

<210> 171
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 171
 Val Leu Tyr Met Gly Ser Gly Ser Ala Val
 1 5 10

<210> 172
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 172
 Met Gln Arg Ile Glu Phe Pro Asn Thr
 1 5

<210> 173
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 173
 Ala Ala Trp Asp Asp Ser Leu Ala Cys Ala Val
 1 5 10

<210> 174
 <211> 8
 <212> PRT
 <213> Homo sapiens

<400> 174
 Gln Gln Ala Asn Ser Phe Arg Thr
 1 5

<210> 175
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 175
 Ala Ala Trp Asp Asp Ser Leu Ser Arg Pro Val
 1 5 10

<210> 176
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 176
 Ala Ala Trp Asp Asp Ser Leu Tyr Asn Val
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<400> 181
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<210> 182
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 Ala Ala Trp Asp Asp Ser Leu Gly Phe Val
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<210> 185
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<400> 186
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<210> 187
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<400> 187
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<400> 189
 Met Gln Ala Leu His Thr Arg Thr
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<210> 190
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<400> 190
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<210> 191
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<400> 191
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<210> 192
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<400> 192
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<210> 194
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 Gln Gln Ala Asn Ser Phe Pro Ala Thr
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<210> 195
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<400> 195
 Val Leu Tyr Met Gly Ser Gly Val Tyr Val
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<210> 196
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<400> 196
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1 5 10

<210> 197
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<212> PRT
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<400> 197
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1 5 10

<210> 198
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<400> 199
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<210> 200
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<400> 200
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1 5 10

<210> 201
<211> 10
<212> PRT
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<400> 201
Ala Ala Trp Asp Asp Ser Leu Ala Leu Val
1 5 10

<210> 202
 <211> 11
 <212> PRT
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<400> 202
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<210> 203
 <211> 277
 <212> PRT
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<400> 203
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 20 25 30

 Val Val Arg Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 35 40 45

 Phe Thr Phe Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly
 50 55 60

 Lys Gly Leu Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr
 65 70 75 80

 Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
 85 90 95

 Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 100 105 110

 Thr Ala Val Tyr Tyr Cys Ala Arg Leu Thr His Pro Tyr Phe Trp Gly
 115 120 125

 Gln Gly Thr Leu Val Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly
 130 135 140

 Gly Gly Ser Gly Gly Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala
 145 150 155 160

 Val Ser Val Ala Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp
 165 170 175

 Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln
 180 185 190

 Ala Pro Val Leu Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile
 195 200 205

 Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr
 210 215 220

Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser
 225 230 235 240

Arg Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu
 245 250 255

Thr Val Leu Gly Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp
 260 265 270

Leu Asn Gly Ala Ala
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<210> 204

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Peptide Tag

<400> 204

His His His His His His
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<210> 205

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Peptide Tag

<400> 205

His Thr Thr Pro His His
 1 5

<210> 206

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 GlySer Linker

<400> 206

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<220>
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 <222> (1)..(831)

<400> 207
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 gcc cag ccg gcc atg gcc gag gtg cag ctg gtg gag tct ggg gga ggt 96
 Ala Gln Pro Ala Met Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly
 20 25 30
 gtg gta cgg cct ggg ggg tcc ctg aga ctc tcc tgt gca gcc tct gga 144
 Val Val Arg Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 35 40 45
 ttc acc ttt gat gat tat ggc atg agc tgg gtc cgc caa gct cca ggg 192
 Phe Thr Phe Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly
 50 55 60
 aag ggg ctg gag tgg gtc tct ggt att aat tgg aat ggt ggt agc aca 240
 Lys Gly Leu Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr
 65 70 75 80
 ggt tat gca gac tct gtg agg ggc cga ttc acc atc tcc aga gac aac 288
 Gly Tyr Ala Asp Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn
 85 90 95
 gcc aag aac tcc ctg tat ctg caa atg aac agt ctg aga gcc gag gac 336
 Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 100 105 110
 cgg ccg gtg tat tac gtg gca aga atg agg gct cct gtg att tgg gcc 384
 Arg Pro Val Tyr Tyr Val Ala Arg Met Arg Ala Pro Val Ile Trp Ala
 115 120 125
 caa gta acc ctg gtc acc gtg tcg aga gtg gga ggc ggt tca ggc gga 432
 Gln Val Thr Leu Val Thr Val Ser Arg Val Gly Gly Gly Ser Gly Gly
 130 135 140
 ggt ggc tct ggc ggt ggc gga tcg tct gag ctg aca cag gac cct gct 480
 Gly Gly Ser Gly Gly Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala
 145 150 155 160
 gtg tct gtg gcc ttg gga cag aca gtc agg atc aca tgc caa gga gac 528
 Val Ser Val Ala Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp
 165 170 175
 agc ctc aga agc tat tat gca agc tgg tac cag cag aag cag gac cag 576
 Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Gln Asp Gln
 180 185 190

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gcc cct tgt ctt gtc atc atg ggt aaa aac aac cgg ccc tca ggg atc      624
Ala Pro Cys Leu Val Ile Met Gly Lys Asn Asn Arg Pro Ser Gly Ile
      195                                200                                205

cca gac cga ttc tct ggc tcc agc tca gga aac aca gct tcc ttg acc      672
Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr
      210                                215                                220

atc act ggg gct cag gcg gaa gat gag gct gac tat tac tgt aac tcc      720
Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser
      225                                230                                235                                240

cgg gac agc agt ggt aac cat gtg gta ttc ggc gga ggg acc aag ctg      768
Arg Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu
      245                                250                                255

acc gtc cta ggt gcg gcc gca gaa caa aaa ctc atc tca gaa gag gat      816
Thr Val Leu Gly Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp
      260                                265                                270

ctg aat ggg gcc gca tag                                              834
Leu Asn Gly Ala Ala
      275

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<211> 246

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<223> Description of Artificial Sequence: Synthetic scFv
Construct

<400> 208

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Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
      35                                40                                45

Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser
      50                                55                                60

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu
      65                                70                                75                                80

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
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Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr Leu Val
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Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
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 Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu
 130 135 140
 Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr
 145 150 155 160
 Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val
 165 170 175
 Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
 180 185 190
 Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln
 195 200 205
 Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly
 210 215 220
 Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly
 225 230 235 240
 Gly Gly Cys Lys Ala Lys
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<210> 209
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
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<400> 209
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20

<210> 210
 <211> 18
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 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 210
 tgaattttct gtatgagg

18

<210> 211
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

 <400> 211
 cgatccgccca ccgccagag 19

 <210> 212
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

 <400> 212
 ctctggcggg ggcggatcg 19

 <210> 213
 <211> 27
 <212> DNA
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 <220>
 <223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

 <400> 213
 aactcgagtg agctgacaca ggaccct 27

 <210> 214
 <211> 33
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 <220>
 <223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

 <400> 214
 ttgtcgact catttctttt ttgcggccgc acc 33

 <210> 215
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 215
atgaaatacc tattgcctac gg 22

<210> 216
<211> 25
<212> DNA
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<220>
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Oligonucleotide

<400> 216
aactcgagac ggtgaccagg gtacc 25

<210> 217
<211> 18
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<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 217
tcgagaggtg gaggcggt 18

<210> 218
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 218
tcgaaccgcc tccacctc 18

<210> 219
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 219
Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu
1 5 10

<210> 220
 <211> 256
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Y1-biotag

<400> 220
 Met Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly
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 Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp
 20 25 30
 Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
 35 40 45
 Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser
 50 55 60
 Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu
 65 70 75 80
 Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr Leu Val
 100 105 110
 Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
 115 120 125
 Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu
 130 135 140
 Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr
 145 150 155 160
 Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val
 165 170 175
 Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
 180 185 190
 Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln
 195 200 205
 Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly
 210 215 220
 Asn Asn Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly
 225 230 235 240
 Gly Gly Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu
 245 250 255

<210> 221
 <211> 74
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
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<400> 221
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 ggtcctgggc cgat 74

<210> 222
 <211> 89
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
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<400> 222
 gatcgattgc accagctgga tategggcca ggaccctgtg tcctgagtga ggaggggtgag 60
 gagcagcagc ccaggccatg gtgatgagg 89

<210> 223
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 223
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<210> 224
 <211> 25
 <212> DNA
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 224
 gctgacctag gacggtcagc ttggt 25

<210> 225
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 225
 gggatatcca gctgswggag tcgggc

26

<210> 226
 <211> 29
 <212> DNA
 <213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 226
 ggactcgaga cggtgaccag ggtaccttg

29

<210> 227
 <211> 25
 <212> DNA
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<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 227
 ccgtcctagg tcagcccaag gctgc

25

<210> 228
 <211> 38
 <212> DNA
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<223> Description of Artificial Sequence: Synthetic
 Oligonucleotide

<400> 228
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38

<210> 229
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 <212> DNA
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<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 229

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37

<210> 230

<211> 38

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 230

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38

<210> 231

<211> 1395

<212> DNA

<213> Homo sapiens

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<221> CDS

<222> (1)..(1392)

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1 5 10 15	

tcc tgg gcc gat atc cag ctg gtg gag tct ggg gga ggt gtg gta cgg	96
Ser Trp Ala Asp Ile Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg	
20 25 30	

cct ggg ggg tcc ctg aga ctc tcc tgt gca gcc tct gga ttc acc ttt	144
Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe	
35 40 45	

gat gat tat ggc atg agc tgg gtc cgc caa gct cca ggg aag ggg ctg	192
Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu	
50 55 60	

gag tgg gtc tct ggt att aat tgg aat ggt ggt agc aca ggt tat gca	240
Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala	
65 70 75 80	

gac tct gtg aag ggc cga ttc acc atc tct aga gac aac gcc aag aac	288
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn	
85 90 95	

tcc ctg tat ctg caa atg aac agt ctg aga gcc gag gac acg gcc gtg	336
Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val	

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tcc	tca	gga	ctc	tac	tcc	ctc	agc	agc	gtg	gtg	acc	gtg	ccc	tcc	agc		624	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser	Ser	
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agc	ttg	ggc	acc	cag	acc	tac	atc	tgc	aac	gtg	aat	cac	aag	ccc	agc		672	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	Val	Asn	His	Lys	Pro	Ser	
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agc	gtc	ctc	acc	gtc	ctg	cac	cag	gac	tgg	ctg	aat	ggc	aag	gag	tac		1008	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	
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aag tgc aag gtc tcc aac aaa gcc ctc cca gcc ccc atc gag aaa acc	1056
Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr	
340 345 350	
atc tcc aaa gcc aaa ggg cag ccc cga gaa cca cag gtg tac acc ctg	1104
Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu	
355 360 365	
ccc cca tcc cgg gag gag atg acc aag aac cag gtc agc ctg acc tgc	1152
Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys	
370 375 380	
ctg gtc aaa ggc ttc tat ccc agc gac atc gcc gtg gag tgg gag agc	1200
Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser	
385 390 395 400	
aat ggg cag ccg gag aac aac tac aag acc acg tct ccc gtg ctg gac	1248
Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Ser Pro Val Leu Asp	
405 410 415	
tcc gac ggc tcc ttc ttc ctc tat agc aag ctc acc gtg cac aag agc	1296
Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val His Lys Ser	
420 425 430	
agg tgg cag cag ggg aac gtc ttc tca tgc tcc gtg atg cat gag gct	1344
Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala	
435 440 445	
ctg cac aac cac tac acg cag aag agc ctc tcc ctg tct ctg ggt aaa	1392
Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys	
450 455 460	
tga	1395

<210> 232
 <211> 702
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(699)

<400> 232	
atg gcc tgg gct ctg ctg ctc ctc acc ctc ctc act cag gac aca ggg	48
Met Ala Trp Ala Leu Leu Leu Leu Thr Leu Leu Thr Gln Asp Thr Gly	
1 5 10 15	
tcc tgg gcc gat gca gag ctg act cag gac cct gct gtg tct gtg gcc	96
Ser Trp Ala Asp Ala Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala	
20 25 30	
ttg gga cag aca gtc agg atc aca tgc caa gga cac agc ctc aga agc	144
Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly His Ser Leu Arg Ser	
35 40 45	

tat tat gca agc tgg tac cag cag aag cca gga cag gcc cct gta ctt	192
Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu	
50 55 60	
gtc atc tat ggt aaa aac aac cgg ccc tca ggg atc cca gac cga ttc	240
Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe	
65 70 75 80	
tct ggc tcc agc tca gga aac aca gct tcc ttg acc atc act ggg gct	288
Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala	
85 90 95	
cag gcg gaa gat gag gct gac tat tac tgt aac tcc cgg gac agc agt	336
Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser	
100 105 110	
ggt aac cat gtg gta ttc ggc gga ggg acc aag ctg acc gtc cta ggt	384
Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly	
115 120 125	
cag ccc aag gct gcc ccc tcg gtc act ctg ttc ccg ccc tcc tct gag	432
Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu	
130 135 140	
gag ctt caa gcc aac aag gcc aca ctg gtg tgt ctc ata agt gac ttc	480
Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe	
145 150 155 160	
tac ccg gga gcc gtg aca gtg gcc tgg aag gca gat agc agc ccc gtc	528
Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val	
165 170 175	
aag gcg gga gtg gag acc acc aca ccc tcc aaa caa agc aac aac aag	576
Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys	
180 185 190	
tac gcg gcc agc agc tac ctg agc ctg acg cct gag cag tgg aag tcc	624
Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser	
195 200 205	
cac aaa agc tac agc tgc cag gtc acg cat gaa ggg agc acc gtg gag	672
His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu	
210 215 220	
aag aca gtg gcc cct aca gaa tgt tca tga	702
Lys Thr Val Ala Pro Thr Glu Cys Ser	
225 230	

<210> 233

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
GlySer Linker, which is generally between 0-20
residues in length

<220>

<221> MOD_RES

<222> (1)..(20)

<223> This region may encompass 0-20 residues

<400> 233

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
20

<210> 234

<211> 107

<212> PRT

<213> Homo sapiens

<400> 234

Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr Val
1 5 10 15

Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser Trp
20 25 30

Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly Lys
35 40 45

Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser
50 55 60

Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu
65 70 75 80

Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val Val
85 90 95

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 235

<211> 240

<212> PRT

<213> Homo sapiens

<400> 235

Met Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro
1 5 10 15

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp
20 25 30

Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp
 50 55 60
 Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr Leu
 100 105 110
 Val Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 115 120 125
 Gly Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala
 130 135 140
 Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser
 145 150 155 160
 Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu
 165 170 175
 Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe
 180 185 190
 Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala
 195 200 205
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser
 210 215 220
 Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 225 230 235 240

<210> 236

<211> 14

<212> PRT

<213> Homo sapiens

<400> 236

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn Gly Ala Ala
 1 5 10

<210> 237

<211> 3

<212> PRT

<213> Homo sapiens

<400> 237
Ala Ala Ala
1

<210> 238
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic KAK
tag

<400> 238
Lys Ala Lys
1

<210> 239
<211> 243
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic scFv
Construct without KAK tag

<400> 239
Met Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly
1 5 10 15
Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp
20 25 30
Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
35 40 45
Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser
50 55 60
Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu
65 70 75 80
Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
85 90 95
Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr Leu Val
100 105 110
Thr Val Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
115 120 125
Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu
130 135 140
Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr
145 150 155 160

Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val
 165 170 175
 Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
 180 185 190
 Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln
 195 200 205
 Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly
 210 215 220
 Asn His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly
 225 230 235 240
 Gly Gly Cys

<210> 240
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 biotag

<400> 240
 Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu
 1 5 10

<210> 241
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 241
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30
 Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr His Cys
 85 90 95

Ala Arg